

Amendments to the Claims

1. (Currently amended) In an integrated circuit system having access to a reference data table for holding information used to control at least one circuit block in said system and having at least ~~one~~ two of a power supply circuit, a body bias control circuit, a clock delivery circuit, a temperature monitor circuit, and a configuration control circuit, a method of improving the performance of said system comprising

(A) obtaining system performance data by testing said system at at least two parameters selected from the group consisting of different supply voltages, different body-bias voltages, different clock speeds, different temperatures, different data bus widths, different circuit block configurations, ~~or~~ and combinations thereof, where at least one of said parameters is different temperatures; and

(B) entering values based on said data into said reference data table, where said temperature monitor circuit and at least one of said power supply circuit, said body bias control circuit, said clock delivery circuit, ~~said temperature monitor circuit, and~~ or said configuration control circuit is controlled using said values.

2. (Original) A method according to Claim 1 wherein said system is tested at different supply voltages.

3. (Original) A method according to Claim 1 wherein said system is tested at different body-bias voltages.

4. (Original) A method according to Claim 1 wherein said system is tested at

different clock speeds.

5. (Currently amended) A method according to Claim 1 wherein said system is tested at different ~~temperatures~~ circuit block configurations.

6. (Original) A method according to Claim 1 wherein said reference data contains data for the entire system.

7. (Original) A method according to Claim 1 wherein said reference data table contains data for one or more circuit blocks.

8. (Original) A method according to Claim 1 wherein said reference data table is not on the same chip as the circuits controlled using data in said reference data table.

9. (Original) A method according to Claim 1 wherein said system is one chip.

10. (Original) A method according to Claim 9 wherein said system is tested when it is on a wafer.

11. (Original) A method according to Claim 1 wherein said power supply circuit is adjusted using said values.

12. (Original) A method according to Claim 1 wherein said clock delivery circuit is adjusted to minimize skew using said values.

13. (Original) A method according to Claim 12 wherein said clock delivery circuit has a delay locked loop circuit.

14. (Original) A method according to Claim 1 wherein said temperature monitor circuit data is adjusted using said values.

15. (Original) A method according to Claim 1 wherein said system contains at least two blocks that can perform the same function and the block assigned to

perform that function is determined using said values.

16. (Original) A method according to Claim 1 wherein at least one but not all of said power supply circuit, said body bias control circuit, said clock delivery circuit, said temperature monitor circuit, and said configuration control circuit is controlled using designed values.

17. (Original) A method according to Claim 1 wherein said test includes 2 to 4 different supply voltages between 1 and 4 volts at 2 to 4 different body-bias voltages between -0.5 and +0.5 volts and 2 to 4 different clock speeds between 1 and 300 MHz at a maximum and a minimum desired temperature.

18. (Original) A method according to Claim 1 wherein said test includes 2 to 4 different supply voltages between 1 and 4 volts at 2 to 4 different body-bias voltages between -0.5 and +0.5 volts and 2 to 4 different clock speeds between 0.2 and 2 GHz at a maximum and a minimum desired temperature.

19. (Original) A method according to Claim 1 wherein said data is used to adjust a MEMS component in said system.

20. (Original) A method according to Claim 1 wherein said reference data table is programmable.

21. (Original) A method according to Claim 1 wherein said values are permanently entered into said reference data table.

22. (Original) A chip made according to the method of Claim 1.

23. (Original) A computer comprising at least one chip according to Claim 22.

24. (Currently amended) In an integrated circuit system having a programmable reference data table for holding information used to control at least one of

operation voltage, operating clock speed, and temperature range in a power supply circuit, a body bias control circuit, a clock delivery circuit, a temperature monitor circuit, and a configuration control circuit, a method of improving the performance of said system comprising

(A) obtaining system performance data by testing said system at at least two parameters selected from the group consisting of different supply voltages, different body-bias voltages, different clock speeds, different temperatures, different data bus widths, different circuit block configurations, ~~or~~ and combinations thereof, where at least one of said parameters is different temperatures; and

(B) entering values based on said data into said reference data table, where said temperature monitor circuit and at least one of said operation voltage, operating body-bias voltage, operating clock speed, and temperature range in said power supply circuit, body bias control circuit, clock circuit, clock delivery circuit, ~~said temperature monitor circuit, and~~ or configuration control circuit is controlled using said values.

25. (Original) A chip made according to the method of Claim 24.

26. (Original) A computer comprising at least one chip according to Claim 25.

27. (Currently amended) In an integrated circuit system having access to a reference data table, at least two same function circuit blocks, and a control circuit to control which of said circuit blocks executes a task, based on values in said reference data table, a method of improving the performance of said system comprising

(A) obtaining system performance data by testing said system at at least two parameters selected from the group consisting of different supply voltages, different body-bias voltages, different clock speeds, different temperatures, different data bus widths, different circuit block configurations, ~~or~~ and combinations thereof, where at least one of said parameters is different temperatures; and

(B) entering values based on said data into said reference data table, whereby said control circuit selects or configures one of said blocks based on values in said reference data table.

28. (Original) A method according to Claim 27 wherein at least one of said circuit blocks is on a different chip.

29. (Original) A chip made according to the method of Claim 27.

30. (Original) A computer comprising at least one chip according to Claim 29.

31. (Previously submitted) A method according to Claim 1 wherein data is entered into said reference data table by a non-volatile memory method.

32. (Previously submitted) A method according to Claim 19 wherein data is entered into said reference data table post-silicon.

33. (Previously submitted) A MEMS device having a programmable reference table in which data is entered after fabrication of said MEMS.

34. (Previously submitted) A MEMS device according to Claim 33 that has temperature monitor circuit.

35. (Previously submitted) A MEMS device according to Claim 33 wherein said

MEMS and said

programmable reference table are on different chips.

36. (Previously submitted) A MEMS device according to Claim 33 wherein said programmable

reference table contains applied voltage data for said MEMS.

37. (Currently amended) In an integrated circuit system having access to a reference data table for holding information used to control at least one circuit block in said system and having at least ~~one~~ two of a power supply circuit, a body bias control circuit, a clock delivery circuit, a temperature monitor circuit, and a configuration control circuit, the improvement comprising a reference data table having values based on system performance data obtained by testing said system at at least two parameters selected from the group consisting of different supply voltages, different body-bias voltages, different clock speeds, different temperatures, different data bus widths, different circuit block configurations, ~~or~~ and combinations thereof, where at least one of said parameters is different temperatures, entered into said reference data table, where said temperature monitor circuit and at least one of said power supply circuit, said body bias control circuit, said clock delivery circuit, ~~said temperature monitor circuit, and~~ or said configuration control circuit is controlled using said values.

38. (Previously submitted) An integrated circuit system according to Claim 37 wherein data is entered into said reference table post-silicon.

39. (Previously submitted) An integrated circuit system according to Claim 37

wherein data is entered into said reference table by a non-volatile memory method.

40. (Previously submitted) An integrated circuit system according to Claim 37 wherein said integrated circuit system comprises one chip.